WHAT IS CLAIMED IS:

1. A method for driving a liquid crystal display, said display comprising an array of elongated row and an array of elongated column electrodes arranged transverse to the row electrodes, wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said method comprising:

applying electrical potentials to the two arrays of electrodes to cause the display to display desired images, wherein two of the row electrodes substantially simultaneously undergo opposite voltage transitions in reference to a reference potential; and

electrically connecting said two row electrodes undergoing opposite voltage transitions to reduce power consumption.

2. The method of claim 1, wherein said applying applies electrical potentials to the array of row electrodes so that pairs of row electrodes are caused to undergo opposite voltage transitions in reference to the reference potential, and wherein said connecting connects each of said pairs to reduce power consumption.

3. A method for driving a liquid crystal display, said display comprising an array of elongated row and an array of elongated column electrodes arranged transverse to the row electrodes, wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said method comprising:

applying electrical potentials to the two arrays of electrodes to cause the display to display desired images, wherein said applying applies scanning electrical potentials to at least one of the row electrodes, and non-scanning electrical potentials to the remaining row electrodes, said non-scanning electrical potentials being applied by means of voltage at a node; and

electrically connecting at least some of said column electrodes to the node to reduce power consumption.

4. The method of claim 3, wherein the row electrodes and the column electrodes form opposing plates of a two dimensional array of capacitors, and wherein said applying also applies data potentials to the column electrodes for display of images at the pixels, thereby applying said potentials to the opposing plates of the capacitors in the array of capacitors.

5. The method of claim 4, wherein the electrically connecting causes charges on the opposite plates of the capacitors connected to the node to be discharged.

6. The method of claim 3, wherein said at least some of the column electrodes undergo opposite voltage transitions in reference to the non-scanning potential.

7. The method of claim 6, wherein said at least some of the column electrodes undergo opposite voltage transitions between two potentials, and wherein the non-scanning potential is between the two potentials.

8. The method of claim 6, wherein the non-scanning potential varies with time during the display of images.

9. The method of claim 8, wherein the non-scanning potential is alternately switched between two different values in successive display cycles.

10. The method of claim 8, wherein the non-scanning potential is alternately switched between two different values, and wherein non-scanning potentials applied to adjacent row electrodes are different.

11. The method of claim 3, wherein the electrical potentials are applied to achieve a row or field inversion scheme.

12. The method of claim 3, further comprising detecting a condition where one of the column electrodes would undergo voltage transitions prior to the connecting.

13. The method of claim 12, said method being performed using a plurality of detectors, each of the detectors for detecting a corresponding column electrode, said detecting including using each of the detectors to detect said condition of the corresponding column electrode.

14. The method of claim 12, wherein said connecting connects only the column electrode(s) that would undergo voltage transition(s) to the node.

15. A method for driving a liquid crystal display, said display comprising an array of elongated row electrodes and an array of elongated column electrodes arranged transverse to the row electrodes, wherein the row electrodes and the column electrodes form opposing plates of a two dimensional array of capacitors, and wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said method comprising:

applying electrical potentials to the two arrays of electrodes, wherein said applying applies scanning and non-scanning potentials to the row electrodes and data potentials to the column electrodes for display of images at the pixels, thereby applying said potentials to the opposing plates of the capacitors in the array of capacitors, and wherein at least one of the electrodes in one of the two arrays undergoes a voltage transition between a first and a second electrical potential, the first electrical potential being higher than the second electrical potential;

wherein said applying includes:

(a) connecting the at least one electrode sequentially to at least a first capacitor, the first capacitor being at an electrical potential between the two potentials; and

(b) connecting the at least one electrode to at least one driver after connection to the at least first capacitor.

16. The method of claim 15, wherein said connecting in (a) connects the at least one electrode sequentially to at least a first and a second capacitor, wherein the first capacitor is at a higher electrical potential than the second capacitor, so that when the at least one electrode transitions from the first potential to the second potential, it is connected first to the first capacitor and then to the second capacitor, and when the at least one electrode transitions from the second potential to the first potential, it is connected first to the second capacitor and then to the first capacitor.

17 The method of claim 16, wherein the column electrodes undergo opposite voltage transitions in reference to the non-scanning potential, and wherein the applying applies the non-scanning potential to the at least first and second capacitors.

18. The method of claim 16, wherein the first potential is higher than a reference potential of the capacitors and the second potential is lower than the reference potential, and wherein said reference potential is substantially the non-scanning potential.

19. The method of claim 18, wherein said non-scanning potential is switched between two different potentials, so that said reference potential is also switched between said two different potentials, and so that the potentials of the capacitors float with the non-scanning potential

20. The method of claim 15, further comprising detecting a condition where at least one column electrode would undergo voltage transitions prior to connecting such column electrodes in (a).

21. The method of claim 20, said method being performed using a plurality of detectors, each of the detectors for detecting a corresponding column electrode, said detecting including using each of the detectors to detect said condition of the corresponding column electrode.

22. The method of claim 20, wherein said connecting in (a) connects to at least the first capacitor only the column electrode(s) that would undergo voltage transition(s).

23. The method of claim 15, wherein at least one of the electrodes in said one of the two arrays undergoes voltage transitions between the first and second electrical potentials, and wherein said connecting in (a) connects the at least one electrode to up to N capacitors at different electrical potentials, N being an integer greater than 1, so that when the at least one electrode undergoes transition from a higher electrical potential to a lower one is connected sequentially to two or more of the capacitors in descending order of their electrical potentials, and when the at least one electrode undergoes transition from a lower electrical potential to a higher one is connected sequentially to two or more of the capacitors in ascending order of their electrical potentials.

24. The method of claim 23, wherein said applying causes at least one pair of row electrodes to substantially simultaneously undergo opposite voltage transitions in reference to a reference potential, and causes such pair to be electrically connected to reduce power consumption.

25. The method of claim 15, wherein said applying causes column electrodes undergoing transitions to be connected to a node to reduce power consumption.

26. The method of claim 25, wherein the non-scanning potential being applied by means of a voltage at the node.

27 The method of claim 15, wherein the column electrodes undergo opposite voltage transitions in reference to the non-scanning potential.

28. The method of claim 27, wherein the column electrodes undergo opposite voltage transitions between the two potentials, and wherein the non-scanning potential is between the two potentials.

29. The method of claim 27, wherein the applying applies the non-scanning potential to the first capacitor.

30. The method of claim 27, wherein the non-scanning potential varies with time during the display of images.

31. The method of claim 30, wherein the non-scanning potential is alternately switched between two different values in successive display cycles.

32. The method of claim 30, wherein the non-scanning potential is alternately switched between two different values, and wherein non-scanning potentials applied to adjacent row electrodes are different.

33. The method of claim 15, wherein the electrical potentials are applied to achieve a row or field inversion scheme.

34. A method for driving a liquid crystal display, said display comprising an array of elongated row electrodes and an array of elongated column electrodes arranged transverse to the row electrodes, wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said method comprising:

supplying electrical potentials to the two arrays of electrodes to cause the display to display desired images, wherein said supplying includes:

applying electrical potentials to the array of column electrodes so that at least one of the column electrodes undergoes voltage transitions;

connecting the at least one column electrode to a node to reduce power consumption; and

applying scanning and non-scanning electrical potentials to the row electrodes, the non-scanning potential being applied by means of a voltage at the node.

35. The method of claim 34, further comprising switching said voltage at the node between two different potentials, so that said non-scanning potential is also switched between said two different potentials.

36. A system for driving a liquid crystal display, said display comprising an array of elongated row and an array of elongated column electrodes arranged transverse to the row electrodes, wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said system comprising:

a circuit applying electrical potentials to the two arrays of electrodes to cause the display to display desired images, wherein two of the row electrodes substantially simultaneously undergo opposite voltage transitions in reference to a reference potential; and

a switch electrically connecting said two row electrodes undergoing opposite voltage transitions to reduce power consumption.

37. A system for driving a liquid crystal display, said display comprising an array of elongated row and an array of elongated column electrodes arranged transverse to the row electrodes, wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said system comprising:

a circuit applying electrical potentials to the two arrays of electrodes to cause the display to display desired images, wherein said applying applies scanning electrical potentials to at least one of the row electrodes, and non-scanning electrical potentials to the remaining row electrodes, said non-scanning electrical potentials being applied by means of voltage at a node; and

a switch electrically connecting said column electrodes to the node to reduce power consumption.

38. A system for driving a liquid crystal display, said display comprising an array of elongated row electrodes and an array of elongated column electrodes arranged transverse to the row electrodes, wherein the row electrodes and the column electrodes form opposing plates of a two dimensional array of capacitors, and wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said system comprising:

a circuit applying electrical potentials to the two arrays of electrodes, wherein said applying applies scanning and non-scanning potentials to the row electrodes and data potentials to the column electrodes for display of images at the pixels, thereby applying said potentials to the opposing plates of the capacitors in the array of capacitors, and wherein at least one of the electrodes in one of the two arrays undergoes a voltage transition between a first and a second electrical potential, the first electrical potential being higher than the second electrical potential;

wherein said circuit includes:

(a) a switch connecting the at least one electrode sequentially to at least a first capacitor, the first capacitor being at an electrical potential between the two potentials; and

(b) a switch connecting the at least one electrode to at least one driver after connection to the at least first capacitor.

39. The system of claim 38, wherein at least a portion of said circuit is an integrated circuit.

40. The system of claim 39, wherein the first capacitor forms a portion of the integrated circuit.

41. The system of claim 39, wherein the first capacitor is a discrete device separate from the integrated circuit.

42. A system for driving a liquid crystal display, said display comprising an array of elongated row electrodes and an array of elongated column electrodes arranged transverse to the row electrodes, wherein overlapping areas of the two arrays of electrodes define pixels of the display when viewed in a viewing direction, said system comprising:

a circuit supplying electrical potentials to the two arrays of electrodes to cause the display to display desired images, wherein said circuit applies electrical potentials to the array of column electrodes so that at least one of the column electrodes undergoes voltage transitions;

a voltage source connected to a node; and

a switch connecting the at least one column electrode to the node to reduce power consumption;

wherein the circuit applies scanning and non-scanning electrical potentials to the row electrodes, and wherein the non-scanning potential is applied by means of the voltage at the node.

43. A method for driving a liquid crystal display, said display comprising an array of elongated row, an array of elongated column electrodes arranged transverse to the row electrodes and a layer of liquid crystal material between the two arrays, comprising:

causing different electrical potentials to be applied sequentially to at least one of the two arrays of electrodes to cause a voltage difference between selected electrodes of the two arrays to reach a value that causes one or more portions of the liquid crystal layer to change its optical properties and thereby display desired images;

wherein the electrical potentials applied cause the value of the voltage difference to be reached in two or more increments.

44. The method of claim 43, wherein the causing applies first electrical potentials to the two arrays for a first time period to cause the voltage difference to step closer to a fraction of said value, and subsequently applies at least second electrical potentials to the two arrays to cause the voltage difference to increase to said value in at least one additional increment.

45. The method of claim 43, wherein the causing applies the first and at least the second different electrical potentials sequentially to the array of row electrodes.

46. The method of claim 43, wherein the causing causes two row electrodes that are undergoing opposite voltage transitions to be connected together.

47. The method of claim 43, wherein the causing causes at least one row electrode to be connected to a passive electronic device.

48. The method of claim 43, wherein the causing causes at least one row electrode to be connected to a capacitor.

49. An apparatus for driving a liquid crystal display, said display comprising an array of elongated row, an array of elongated column electrodes arranged transverse to the row electrodes and a layer of liquid crystal material between the two arrays, said apparatus comprising:

a circuit causing different electrical potentials to be applied sequentially to at least one of the two arrays of electrodes to cause a voltage difference between selected electrodes of the two arrays to reach a value that causes one or more portions of the liquid crystal layer to change its optical properties and thereby display desired images;

wherein the electrical potentials applied cause the value of the voltage difference to be reached in two or more increments.

50. The apparatus of claim 49, said apparatus comprising more than two power sources supplying said different electrical potentials to the electrodes.

51. The apparatus of claim 49, wherein said circuit includes switches, two power supplies and one or more capacitors connectable to the supplies by the switches to supply said different electrical potentials to the electrodes.

52. The apparatus of claim 49, wherein the circuit connects together two row electrodes that are undergoing opposite voltage transitions.

53. The apparatus of claim 49, wherein the circuit connects at least one row electrode to a passive electronic device.

54. The apparatus of claim 49, wherein the circuit connects at least one row electrode to a capacitor.

55. The apparatus of claim 49, said apparatus being an active matrix device.

56. The apparatus of claim 49, wherein said circuit causes electrical potentials to be applied so that more than one line of the display is scanned during at least one scanning cycle.